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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,534	04/09/2007	Takuji Nishide	83363.0015	3794
26/021 7590 08/06/2009 HOGAN & HARTSON L.L.P. 1999 AVENUE OF THE STARS SUITE 1400 LOS ANGELES, CA 90067				
EXAMINER HOLLOWAY, IAN KNOBEL				
ART UNIT		PAPER NUMBER		
3763				
NOTIFICATION DATE		DELIVERY MODE		
08/06/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ctkeyner@hhlaw.com  
LAUSPTO@hhlaw.com  
lbrivero@hhlaw.com

# Office Action Summary

**Application No.**

10/576,534

**Applicant(s)**

NISHIDE ET AL.

**Examiner**

IAN K. HOLLOWAY

**Art Unit**

3763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 April 2007.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-19 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 19 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/CD/CD)  
4) ☐ Interview Summary (PTO-413)  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_  
Paper No(s)/Mail Date \_\_\_\_\_

### DETAILED ACTION

1. This office action is in response to application no. 10576534 filed on 4/9/2007.

#### *Priority*

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Douk (US Pg Pub 2005/0027236)**, herein after referred to as **D**, in view of **Noriega et al. (US Pg Pub 2005/0119615)**, herein after referred to as **N**.

Regarding **Claim 1, D** discloses a main shaft (**100**, the device) including a distal shaft (**104**, distal tubular element) and a proximal shaft, (**102**, proximal tubular element)

the main shaft having an aspiration lumen disposed therein, the aspiration lumen being used for removing the substance by aspiration; a guidewire shaft (**112**, guidewire shaft) disposed at the distal region of the distal shaft, the guidewire shaft having a guidewire lumen into which a guidewire is insertable, the guidewire lumen being disposed in the guidewire shaft; a hub (**120**, hub) provided at the proximal end of the proximal shaft, the aspiration lumen extending to the hub;

**D** fails to disclose a detachable core wire disposed in the aspiration lumen.

However, **N** teaches a detachable core wire (**22**, drive shaft) disposed in the aspiration lumen.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to use the core as taught by **N**, since **N** states at paragraph 78 that such modification would allow for the crossing of lesions. Thus, it would have been obvious to one of ordinary skill in the art to apply the construction as taught in **N**, to improve the device of **D** for the predictable result of making it more mobile.

Regarding **Claim 2**, **N** discloses: a connector (**21**, the handle) is fixed on the proximal end of the core wire, and the connector is mounted to the proximal end of the hub in a detachable manner.

Regarding **Claim 3**, **N** discloses: the interior of the aspiration lumen can be flushed through the connector with the connector being mounted to the proximal end of the hub in a detachable manner. (**Fig. 3A**, the core does not interfere with the lumen).

Regarding **Claim 4**, **N** discloses: the distal end of the core wire recedes from the distal end of the aspiration lumen in the proximal direction. (**Fig. 3**, the tip narrows).

Regarding **Claims 5 and 6, D** discloses: the invention as claimed above except for the proper ratio of radii.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the proper ratio, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Regarding **Claim 7, N** discloses: the core wire is a spring wire comprising a coiled metal wire. (**34**, coiled wire).

Regarding **Claim 8, N** discloses: at least a portion of the core wire has a tapered shape (**Fig. 3**, the end tapers) in which the outer diameter becomes larger toward the proximal end..

Regarding **Claim 9, N** discloses: at least a portion of the core wire has flexibility which becomes higher toward the distal end. (**Paragraph 10**).

Regarding **Claim 10, N** discloses: the core wire comprises stainless steel, a Co-Cr alloy, an Ni-Ti alloy, an Ni-Ti-Fe alloy, an Ni-Ti-Cu alloy, an Ni-Ti-Cr alloy, an Ni-Ti-V alloy, an Ni-Ti-Co alloy, an Ni-Ti-Nb alloy, an Ni-Ti-Pd alloy, an Ni-Ti-Cu-Cr alloy, or a composite thereof. (**Paragraph 80**).

Regarding **Claims 11 and 12, D** discloses: the invention as claimed above except for the proper L relationship.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the proper range, since it has been held that where the

general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Regarding **Claim 13, N** discloses: a radiopaque marker. (**36, radiopaque marker**).

Regarding **Claim 14, D** discloses: a polyimide. (**Paragraph 27**).

Regarding **Claim 15, N** discloses: a braided tube (**Fig. 10, braid and polymer**) in which a metal braid and a polymer material are combined..

Regarding **Claim 16, N** discloses: an inner layer (**Fig. 3A**) defining the aspiration lumen, a metal braid disposed on the outer surface of the inner layer, and an outer layer disposed on the outer surface of the metal braid.

Regarding **Claim 17, D** discloses: the invention as claimed above except for the proper flexural modulus.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the flexibility, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Regarding claim 19 D discloses the steps of inserting the aspiration catheter into a living body with the core wire being present in the aspiration lumen, then withdrawing the core wire, and applying a negative pressure to the aspiration lumen to remove by aspiration a substance from the living body(**Paragraph 45-47**)

6. Claim 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over **D and N**, in view of Ha et al. (US Patent 6159195).

Regarding **Claim 18, D** discloses the invention claimed above except for the coating.

However H teaches at least a portion of the distal shaft is applied with a hydrophilic coating (**Column 6, lines 13-19**, hydrophilic coating well known in the art) that exhibits a lubricating property in a wet environment.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the coating since it was known in the art that coatings are commonly applied.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to IAN K. HOLLOWAY whose telephone number is (571)270-3862. The examiner can normally be reached on 8-5, Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nicholas D. Lucchesi can be reached on 571-272-4977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ian K Holloway/  
Examiner, Art Unit 3763

/Nicholas D Lucchesi/  
Supervisory Patent Examiner, Art Unit 3763